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KILYK BOWERSOX PLLC

PAGE 02

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Kim Blum  
Name (Print)

Kim Blum  
Signature

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: DOI et al.	)	Examiner:	Unassigned
Application Number: 10/580,877	)	Group Art Unit:	1646
Filed: May 25, 2006	)	Confirmation No.:	5850
Docket No.: 3190-097	)	Customer No.:	33432

For: PROCASPASE-1 ACTIVATION INHIBITOR

**REQUEST FOR REFUND**

Mail Stop 16  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

April 13, 2007

Sir:

The undersigned respectfully requests a refund of \$360.00 which was erroneously charged to Deposit Account No. 50-0925 for the above-identified application.

Applicants were erroneously charged \$360.00 for multiple dependent claims. Applicants filed the above-identified application on May 25, 2006. At the same time, applicants filed a Preliminary Amendment (copy enclosed) to amend original claims 4, 10, and 11 so that the claims were not multiply dependent. Therefore, it is respectfully submitted that the fee of \$360.00 for multiple dependent claims is in error.

Accordingly, the United States Patent and Trademark Office charge is in error. The undersigned respectfully request a refund of \$360.00.

Respectfully submitted,

Luke A. Kilyk  
Reg. No. 33,251

Atty. Docket No. 3190-097  
KILYK & BOWERSOX, P.L.L.C.  
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Date: May 25, 2006 Label No. EV790042685US I hereby certify that, on the date indicated above, I deposited this paper with identified attachments and/or fee with the U.S. Postal Service and that it was addressed for delivery to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 by "Express Mail Post Office to Addressee" service.

Kim Blum  
Name (Print)

Kim Blum  
Signature

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	DOI et al.	)	Examiner:	Unassigned
Application No.:	Unassigned	)	Group Art Unit:	Unassigned
Filed:	May 25, 2006	)	Confirmation No.:	Unassigned
Docket No.:	3190-097	)	Customer No.:	33432
For: PROCASPASE 1 ACTIVATION INHIBITOR				

### PRELIMINARY AMENDMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

May 25, 2006

Sir:

Prior to examination of the above-identified application on the merits, applicants respectfully request that the application be amended as follows:

**Amendments to the Specification begin on page 2 of this paper.**

**Amendments to the Claims are reflected in the listing of claims which begins on page 3 of this paper.**

**Remarks/Arguments begin on page 7 of this paper.**

**COPY**

Preliminary Amendment  
U.S. Patent Application No. Unassigned

**AMENDMENTS TO THE SPECIFICATION:**

*On page 1, after the title, please insert the following new paragraph as follows:*

This application is a National Stage Application of PCT/JP2004/017586, filed November 26, 2004.

*Please amend paragraph [0051] as follows:*

[0051] Further, a compound that inhibits the oligomerization of procaspase-1 caused by NOD2 can be identified by selecting the conditions that allow for the oligomerization of procaspase-1 by NOD2, contacting a test compound with NOD2 and/or procaspase-1 under the conditions, employing a system that uses a signal and/or a marker capable of detecting the oligomerization of procaspase-1 caused by NOD2, and then detecting the presence, the absence, or the change of the signal and/or the marker. For example, a compound that inhibits the oligomerization of procaspase-1 caused by NOD2 can be identified by using an assay system, such as shown in Example 3, which uses a cell co-expressing NOD2 gene with procaspase-1 gene to determine the oligomerization of caspase-1 procaspase-1 in the cell, as shown in Example 3.

Preliminary Amendment  
U.S. Patent Application No. Unassigned

Amendments to the Claims:

Please substitute the following amended claims for the pending claims (based on the Article 34 amendment) with the same numbers in the above-identified application. This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method selected from the following group:
  - (i) a method of inhibiting the oligomerization of procaspase-1, comprising inhibiting the binding of NOD2 to procaspase-1,
  - (ii) a method of inhibiting the activation of procaspase-1, comprising inhibiting the binding of NOD2 to procaspase-1, and
  - (iii) a method of inhibiting the production of caspase-1, comprising inhibiting the binding of NOD2 to procaspase-1.
2. (Original) A method of preventing and/or treating an inflammatory disease, comprising inhibiting the binding of NOD2 to procaspase-1.
3. (Original) A method of preventing and/or treating an inflammatory disease, comprising using at least one compound that inhibits the binding of NOD2 to procaspase-1.
4. (Currently amended) The method of preventing and/or treating an inflammatory disease according to claim 2 or claim 3, wherein the inflammatory disease is sepsis, inflammatory bowel disease, Crohn's disease or rheumatic disorder.
5. (Original) A method of identifying a compound that inhibits the binding of NOD2 to procaspase-1, comprising contacting NOD2 and/or procaspase-1 with a compound under conditions that allow for the binding of NOD2 to procaspase-1, employing a system using a signal and/or marker capable of detecting the binding of NOD2 to procaspase-1; and

Preliminary Amendment

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detecting the presence or absence and/or change of the signal and/or marker to determine whether the compound inhibits the binding of NOD2 to procaspase-1.

6. (Original) An agent selected from the following group:

- (i) an agent for inhibiting the oligomerization of procaspase-1, which inhibits the binding of NOD2 to procaspase-1,
- (ii) an agent for inhibiting the activation of procaspase-1, which inhibits the binding of NOD2 to procaspase-1, and
- (iii) an agent for inhibiting the production of caspase-1, which inhibits the binding of NOD2 to procaspase-1.

7. (Original) An agent selected from the following group:

- (i) an agent for inhibiting the oligomerization of procaspase-1, comprising at least one compound that inhibits the binding of NOD2 to procaspase-1,
- (ii) an agent for inhibiting the activation of procaspase-1, comprising at least one compound that inhibits the binding of NOD2 to procaspase-1, and
- (iii) an agent for inhibiting the production of caspase-1, comprising at least one compound that inhibits the binding of NOD2 to procaspase-1.

8. (Original) An agent for preventing and/or treating an inflammatory disease, which inhibits the binding of NOD2 to procaspase-1.

9. (Original) An agent for preventing and/or treating an inflammatory disease, comprising at least one compound that inhibits the binding of NOD2 to procaspase-1.

10. (Currently amended) An agent for preventing and/or treating an inflammatory disease, comprising the agent according to claim 6 or claim 7.

11. (Currently amended) The agent for preventing and/or treating an inflammatory disease

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**FACSIMILE TRANSMISSION COVER SHEET**

DATE: April 13, 2007

TO: Mail Stop 16  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

RE: U.S. Patent Application No. 10/580,877  
Entitled: PROCASPASE-1 ACTIVATION INHIBITOR  
Our Ref.: 3190-097

FROM: Luke A. Kilyk, Esq. 

FAC. TEL. NO.: 1-571-273-6500

NUMBER OF PAGES (INCLUDING THIS COVER SHEET): 9

Items Attached: Request for Refund -- 1 page  
Copy of Preliminary Amendment filed May 25, 2006 -- 7 pages

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Kim Blum  
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according to claims claim 8-~~or~~9, wherein the inflammatory disease is sepsis, inflammatory bowel disease, Crohn's disease or rheumatic disorder.

12. (Original) An agent for preventing and/or treating an inflammatory disease, which inhibits the oligomerization of procaspase-1 by inhibiting the binding of NOD2 to procaspase-1.

13. (Original) The agent for preventing and/or treating an inflammatory disease according to claim 12, wherein the inflammatory disease is sepsis, inflammatory bowel disease, Crohn's disease or rheumatic disorder.

14. (Original) A reagent kit for use in the method according to claim 5, comprising at least one selected from NOD2, a polynucleotide encoding NOD2, a vector comprising the polynucleotide and a transformant comprising the vector; and at least one selected from procaspase-1, a polynucleotide encoding procaspase-1, a vector comprising the polynucleotide and a transformant comprising the vector.

15. (Original) A method of identifying a compound that inhibits the binding of NOD2 to a procaspase-1 variant which is a protein shown by the amino acid sequence as set forth in SEQ ID NO: 4 in the Sequencing Listing but has a substitution of the position at 285 of the amino acid sequence with alanine, comprising contacting NOD2 and/or the variant with a compound under conditions that allow for the binding of NOD2 to the variant, employing a system using a signal and/or a marker capable of detecting the binding of NOD2 to the variant, and detecting the presence or absence and/or the change of the signal and/or the marker to determine whether the compound inhibits the binding of NOD2 to the variant.

16. (New) The method of preventing and/or treating an inflammatory disease according to claim 3, wherein the inflammatory disease is sepsis, inflammatory bowel disease, Crohn's disease or rheumatic disorder.

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17. (New) An agent for preventing and/or treating an inflammatory disease, comprising the agent according to claim 7.

18. (New) The agent for preventing and/or treating an inflammatory disease according to claim 9, wherein the inflammatory disease is sepsis, inflammatory bowel disease, Crohn's disease or rheumatic disorder.

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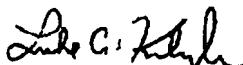
REMARKS/ARGUMENTS

Prior to payment of the filing fees, please enter the above amendment. The amendments to the specification and claims are editorial in nature.

No questions of new matter are raised by the above amendments as they are fully supported by the present application. Entry of the above amendment is therefore respectfully requested.

If there are any fees due in connection with the filing of this Preliminary Amendment, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. §1.136 not accounted for above, such extension is requested and should also be charged to our Deposit Account.

Respectfully submitted,



Luke A. Kilyk  
Registration No. 33,251

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